

**REMARKS**

Claims 1-40 are pending in the current application. Claims 1-40 currently stand rejected, and claims 1-40 have been amended. Reconsideration and withdrawal of the rejections to claims 1-40 are respectfully requested in light of the preceding amendments and following remarks.

**Claim Objections and Rejections – 35 U.S.C. § 112**

Claim 9 is objected to because “cording” should be “according”; Applicants have amended the claim to correct this typographical error. Claim 19 is objected to because “in” is missing after the words “detection quality”; Applicants have amended the claim to correct this typographical error. Claims 5 and 25 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for lacking antecedent basis for the term “said digital messages.” Applicants have amended claims 5 and 25 to recite “the digital messages *sent to the digital interface*” so as to properly refer back to the digital messages so sent in claims 4 and 24. As such, claims 5 and 25 have antecedent basis via claims 4 and 24, respectively, and withdrawal of the rejection to claims 5 and 25 under 35 U.S.C. § 112, second paragraph is respectfully requested.

Claim Rejections – 35 U.S.C. § 102

Claims 1-5, 7-13, 16-18, 21-25, 27-33 and 36-38 stand rejected under 35 U.S.C. § 102(e) as being anticipated by US Pat 6,617,962 to Horwitz et al. (“Horwitz”). Applicants respectfully traverse this rejection for the reasons detailed below.

Initially, Applicants have amended claims 1 and 21 to recite additional actions of “converting the second analog signal **from an analog domain to a first digital signal in a digital domain**” and “identifying, **with a digital processor**, which transponder signaling protocol of the plurality of transponder signaling protocols was used to send the second analog signal, **the identifying being based on the first digital signal**” and apparatuses configured to execute these actions. That is, when the recited reader communicates with multiple analog transponders, each operating on one of several signaling protocols, the reader is able to determine what protocol a specific transponder by converting the transponder’s analog transmission to a digital signal. Only then is the reader able to analyze the digital signal for protocol identity with a digital processor. Digital analysis uniquely enables frequency modulation, telegram layout, shift keying, and several other types of analyses so as to accurately identify a transponder’s analog transmission protocol, from hundreds of potential protocols. The recited conversion and identification using digital processing thus permit the reader to communicate with many different types of transponders using each transponder’s specific, identified communication protocol.

The Examiner alleges that Horwitz discloses the previously-recited analog to digital converter and conversion inherently in radio frequency modules of FIG. 1. Applicants respectfully submit that nothing in Horwitz necessarily requires its radio frequency module 12 in tag reader 1 to include any digital circuitry, let alone circuitry to convert analog signals to digital. Rather, Horwitz discloses **only that its radio frequency module includes analog circuitry.** See Horwitz, Col. 7, ll. 40-44; FIGS. 4(a), (b) (showing analog circuitry). The only place Horwitz discusses digital circuitry is inside tags 20, which are read by separate reader 1. See Horwitz, Col 7, ll. 7-15. Nothing prevents signals generated from tag digital circuitry from being received by reader analog circuitry – indeed, this appears to be what Horwitz does. This aside, even if the reader 1 needed to convert the signals from the tag 10, a *digital to analog* conversion would be necessary, not the recited opposite conversion. *A fortiori*, nothing necessarily requires reader 1 in Horwitz to include an analog to digital converter, and Horwitz fails to teach or suggest anything but analog circuitry in its reader 1.

In addition to the outstanding differences between Horwitz and claims 1 and 21 as previously presented, Horwitz further does not disclose the newly-recited transponder protocol identification via digital analysis. Horwitz instead only processes signal output for clock separation with basic, non-transformative **analog analysis.** See Horwitz, Col. 8, ll. 4-7; Col 10, l. 66 – Col. 11, l. 6. Horwitz does not require or otherwise disclose or suggest anything about a digital analysis. As such, Horwitz lacks the analog-to-

digital conversion and digital analysis of the resultant digital signal to identify a transponder signaling protocol as recited in claims 1 and 21.

Because Horwitz fails to teach or suggest each and every element of claims 1 and 21, Horwitz cannot anticipate or render obvious claims 1 or 21. Claims 2-5, 7-13, 16-18, 22-25, 27-33, and 36-38 are allowable at least for depending from an allowable base claim. Withdrawal of the rejection under 35 U.S.C. § 102(e) to claims 1-5, 7-13, 16-18, 21-25, 27-33, and 36-38 is respectfully requested.

#### Claim Rejections – 35 U.S.C. § 103

Claims 6 and 26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Horwitz in view of US Pat 5,649,296 to MacLellan (“MacLellan”). Claims 14 and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Horwitz in view of MacLellan and US Pat 4,769,808 to Kanemasa et al. (“Kanemasa”). Claims 15 and 35 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Horwitz in view of MacLellan, Kanemasa, and US Pat 6,831,562 to Rodgers et al. (“Rodgers”). Claims 19 and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Horwitz in view of US Pat Pub 2004/0160324 to Stilp (US 2004/0160324, hereinafter “Stilp”). Claims 20 and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Horwitz in view of US Pat 5,153,583 to Murdoch (“Murdoch”). Applicants respectfully traverse these rejections for the reasons detailed below.

None of MacLellan, Kanemasa, Rodgers, Stilp, or Murdoch account for the differences between the claims and Horwitz, discussed above, nor does the Examiner apply any of these references for accounting for these differences. Because Horwitz, alone or in combination with MacLellan, Kanemasa, Rodgers, Stilp, and Murdoch, fails to teach or suggest each and every element of claims 1 and 21, these references cannot anticipate or render obvious claims 1 or 21. Claims 6, 14, 15, 19, 20, 26, 34, 35, and 40 are allowable at least for depending from an allowable base claim. Withdrawal of the rejections under 35 U.S.C. § 103(a) to claims 6, 14, 15, 19, 20, 26, 34, 35, and 40 is respectfully requested.

**CONCLUSION**

Accordingly, in view of the above amendments and remarks, reconsideration of the objections and rejections and allowance of each of claims 1-40 in connection with the present application is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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By

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